



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/868,221	06/15/2001	Richard J Titmuss	36-1439	6037

23117 7590 04/03/2006

NIXON & VANDERHYE, PC  
901 NORTH GLEBE ROAD, 11TH FLOOR  
ARLINGTON, VA 22203

EXAMINER

MANIWANG, JOSEPH R

ART UNIT	PAPER NUMBER
----------	--------------

2144

DATE MAILED: 04/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/868,221

Applicant(s)

TITMUSS ET AL.

Examiner

Joseph R. Maniwang

Art Unit

2144

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7,9,10,15 and 17-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7,9,10,15 and 17-20 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/19/06 has been entered.

### ***Claim Objections***

2. Claim 10 is objected to because of the following informalities: claim 10 recites "relating to type of subnetworks" which is grammatically incorrect and appears to be a typographical error. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 2144

5. Regarding claims 1-7, claim 1 recites the limitations "the data stream" and "the network location" in limitation (i). There is insufficient antecedent basis for these limitations in the claim.

***Claim Rejections - 35 USC § 101***

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claim 9 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

8. Regarding claim 9, "A mobile communications terminal comprising: an interface...; means for transmitting and receiving...; control means...; and means responsive to the home agent which selects..." is non-statutory, as the various recited means and interface can be reasonably interpreted by one of ordinary skill in the art as software, per se, and therefore not tangibly embodied in a manner so as to be executable.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Art Unit: 2144

10. Claims 1-5, 9, 10, 15, and 17-20 are rejected under 35 U.S.C. 102(a) as being anticipated by Zhao et al. ("Flexible Network Support for Mobility", ACM/IEEE, Proceedings of the Mobile Computing and Networking (MobiCom), p. 145-156, Dallas, TX, Oct 1998), hereinafter referred to as Zhao.

11. Regarding claims 1, 9, 10, and 15, Zhao disclosed a method and system comprising sending a data stream from a correspondent host to a home agent located in the home network of a mobile terminal (see Abstract; section 2), the mobile terminal sending a request for the data stream to be transmitted by the correspondent host (see section 3.1) and the mobile terminal communicating with the home agent to transmit the network location of the mobile terminal to the home agent (see sections 5.3.1, 5.3.2); and forwarding the one or more data streams to the mobile terminal, wherein the mobile terminal sends to the home agent information about the type of networks to which the mobile terminal is currently connected, the available bandwidth for each type of network to which the mobile terminal is currently connected, and the mobile host's care-of address applicable for each type of network to which the mobile terminal is currently connected, the home agent selecting an appropriate network and its applicable care-of address based on the available bandwidth for each type of network to which the mobile terminal is currently connected (see sections 5.3.1-5.3.2 and 9; Figure 6, Figure 7, Figure 8).

12. Regarding claim 2, Zhao disclosed the method and system wherein in response to a change in the information about the current availability received by the home agent at least one of the data streams is forwarded by the home agent to a network cache,

Art Unit: 2144

said at least one of the data streams being stored in the network cache until the home agent forwards said at least one of the data streams to the mobile terminal (see section 4.3).

13. Regarding claim 3, Zhao disclosed the method and system wherein the request sent by the mobile terminal to the correspondent host is sent via the home agent (see section 3.2):

14. Regarding claim 4, Zhao disclosed the method and system wherein all communication from the home agent to the mobile terminal is routed via a foreign agent, the foreign agent being located in a subnetwork to which the mobile terminal is connected (see section 2).

15. Regarding claim 5, Zhao disclosed the method and system wherein all communication from the mobile terminal to the home agent is routed via a foreign agent, the foreign agent being located in a subnetwork to which the mobile terminal is connected (see section 2).

16. Regarding claims 17-20, Zhao disclosed the method and system wherein the mobile host selects an appropriate network and its applicable care-of address by comparing the bandwidths of different types of networks to which the mobile host is selected (see section 5.1 and 9).

### ***Claim Rejections - 35 USC § 103***

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2144

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhao et al. ("Flexible Network Support for Mobility", ACM/IEEE, Proceedings of the Mobile Computing and Networking (MobiCom), p. 145-156, Dallas, TX, Oct 1998), hereinafter referred to as Zhao, and further in view of Kikinis (U.S. Pat. No. 6,553,410).

19. Zhao disclosed a method of transmitting data to a mobile client having multiple network connections. The invention utilized Mobile IP (see Abstract), where it was disclosed that a correspondent host could transmit data to a mobile terminal. The data was first intercepted by a home agent, which then forwarded it to a mobile terminal (see section 2). Zhao disclosed that a mobile device could request the data, such as in a web transfer (see section 3.1). The mobile terminal sent location updates to the home agent (see sections 5.3.1, 5.3.2). Based on such connectivity data, the home agent forwarded the requested data from the correspondent host to the mobile terminal (see section 2).

20. While disclosing the possibility of a home agent receiving a change in connectivity data, Zhao did not specifically disclose reducing content forwarded to a mobile terminal, wherein the reduction further comprises conversion of the data to a lower resolution.

21. In a related art of network data communications, Kikinis disclosed a method and system for providing improved data transmission to computer connected to a network. In particular, Kikinis disclosed the invention in the context of portable (i.e., mobile)

Art Unit: 2144

devices (see column 5, lines 36-49). Similar to the invention of Zhao, Kikinis disclosed that a mobile terminal could request web data over a network (see column 10, line 64 through column 11, line 11). A mobile terminal provided connectivity data to a proxy server, which in turn used the data to tailor content forwarded to the mobile terminal (see column 12, lines 11-26). The tailored data was in reduced form (see column 3, lines 8-18). Furthermore, the tailored data could be of lower resolution than the original (see column 8, lines 15-28; column 11, lines 22-28).

22. It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Zhao and Kikinis to incorporate the provision of forwarding a reduced-content version of data to the mobile terminal, wherein the reduction comprised a conversion to the data to a lower resolution. The invention of Zhao related to the use of mobile terminals, which included light-weight, portable computers and laptops (see Abstract, Figure 9). With such devices, Kikinis recognized a problem of battery life (see column 2, lines 16-60). One of ordinary skill in the art then would have been motivated to consider the teachings of Kikinis as they proved advantageous when used with such portable devices, giving the added benefit of increased battery life and saved power (see column 5, lines 56-65).

### ***Response to Arguments***

23. Applicant's arguments filed 01/19/06 have been fully considered but they are not persuasive.



24. Regarding claims 1-5, 9-10, and 15-16 rejected under 35 U.S.C. 102(a) as being anticipated by Zhao et al. ("Flexible Network Support for Mobility", ACM/IEEE, Proceedings of the Mobile Computing and Networking (MobiCom), p. 145-156, Dallas, TX, Oct 1998), Applicant asserts that Zhao fails to disclose "wherein the mobile terminal sends to the home agent information about the type of networks to which the mobile terminal is currently connected, the available bandwidth for each type of network to which the mobile terminal is currently connected, and the mobile host's care-of address applicable for each type of network to which the mobile terminal is currently connected, the home agent selecting an appropriate network and its applicable care-of address based on the available bandwidth for each type of network to which the mobile terminal is currently connected". Specifically, Applicant asserts that in contrast to "the home agent selecting a network and its applicable care-of address based on the available bandwidth for each type of network to which the mobile terminal is connected", Zhao discloses "Packets are intercepted by the home agent and are tunneled to the care-of address selected based on the packets' destination address, source address and source port". However, Examiner submits that Zhao reads upon the broad concept of selecting a network based on bandwidth as claimed. Zhao disclosed "automatically selecting the most suitable interface to use for each flow according to the QoS specified" (see section 9). Such a selection was made after periodically probing the different networks to identify their characteristics, and then matching the desired QoS to the characteristics (see section 9). QoS involved, as one of ordinary skill in the art would recognize and as further disclosed by Zhao, bandwidth considerations (see

section 5.1). Thus, Zhao disclosed selecting an appropriate network based on the available bandwidth of each network connected to the mobile terminal as claimed.

### ***Conclusion***

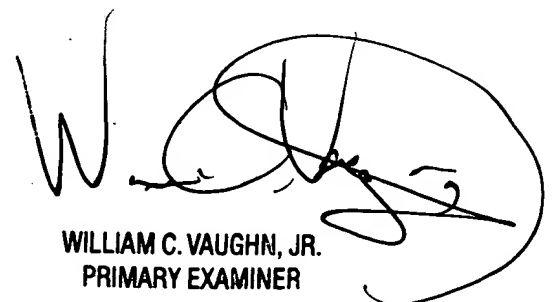
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Cheshire et al. ("Internet Mobility 4x4". Proceedings of SIGCOMM, 1996)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph R. Maniwang whose telephone number is (571) 272-3928. The examiner can normally be reached on Mon-Fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William C. Vaughn can be reached on (571) 272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



WILLIAM C. VAUGHN, JR.  
PRIMARY EXAMINER